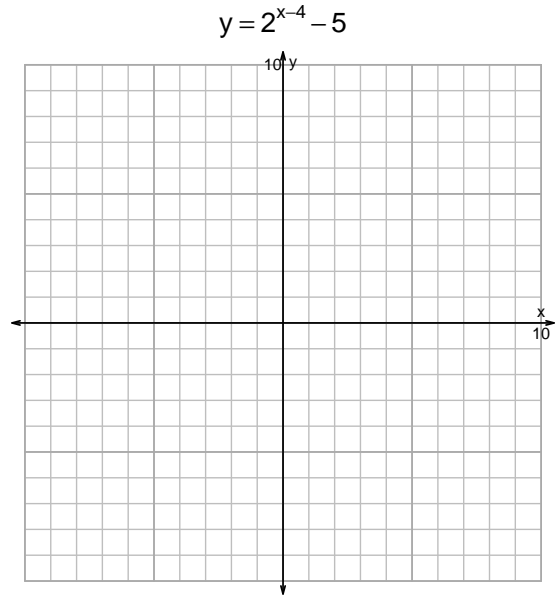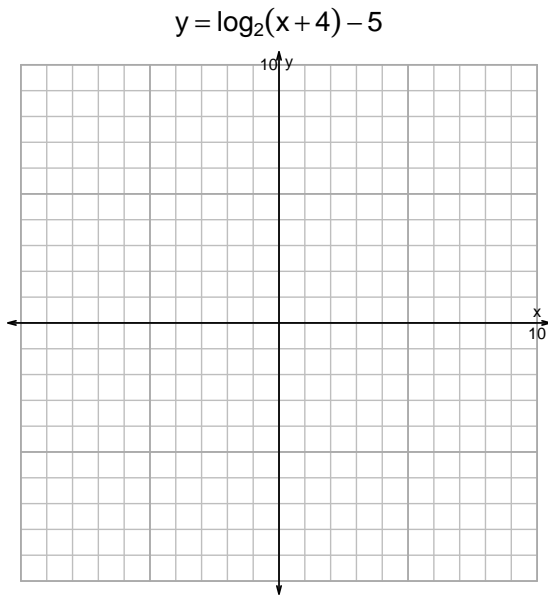Name: _____   Date: _____
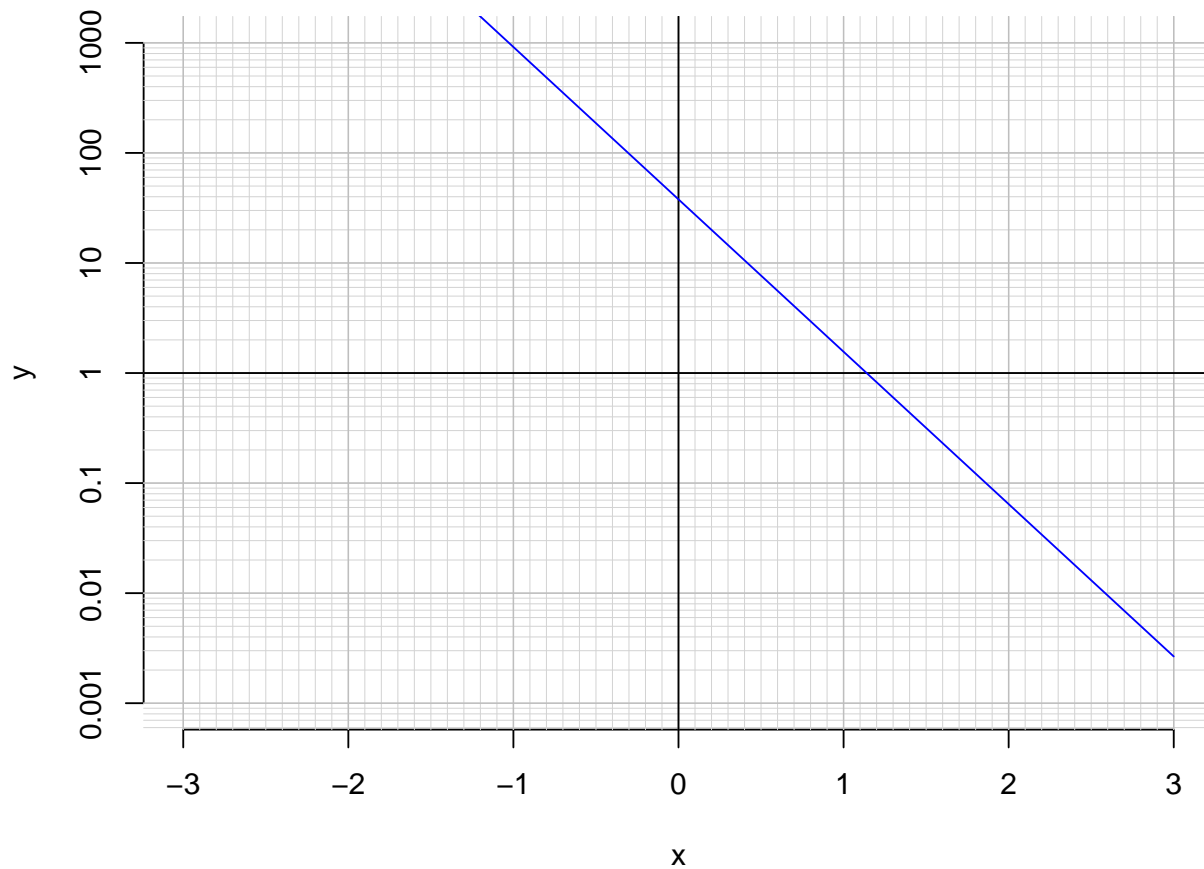
s18quiz: EXP LOG (QUIZ v212)

1. Graph $y = \log_2(x+4) - 5$ and $y = 2^{x-4} - 5$ on the grids below. Also, draw any asymptotes with dotted lines.

$$y = \log_2(x+4) - 5$$

$$y = 2^{x-4} - 5$$

2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$17 = \left(\frac{3}{5}\right) \cdot 10^{-7t/4}$$

3. An exponential function $f(x) = 37.8 \cdot e^{-3.19x}$ is graphed below on a semi-log plot.

a. Using the plot above, evaluate $f(1.3)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(20)$.